

**Sustainable Groundwater Management Plan Requirements
for the Sonoma Valley Groundwater Management Plan
Included in Water Code Part 2.74 Sustainable Groundwater Management**

Chapter 3 – Basin Boundaries

Section 10722 and 10722.2 – Use of Bulletin 118 Basin Boundaries and Process for Requesting and Approving Basin Boundary Revisions

The Plan contains more than one Bulletin 118 groundwater basin and therefore will require a discussion with DWR regarding the plan boundary and the basins that the Plan includes.

Chapter 6 – Groundwater Sustainability Plans - General

10727. Requirement to Develop Groundwater Sustainability Plan for Medium- and High-Priority Basins; Form of Plan

“The groundwater sustainability plan may incorporate, extend, or be based on a plan adopted pursuant to Part 2.75 (commencing with Section 10750 – refers to AB3030/SB1938 plans).”

10750.1 Limitation on Authority to Adopt New Plans

Beginning January 1, 2105, no new plans for high- or medium priority basins can be adopted or renewed pursuant to WC Section 10750.

Plans adopted prior to January 1, 2015 shall remain in effect until a groundwater sustainability plan is adopted.

The existing GMP will remain in effect until a new GSP is prepared.

**Chapter 6 – Groundwater Sustainability Plans
10727.2 Required Plan Elements**

The following required elements are not contained within the existing GMP and will need to be added:

(b)(1) Measureable objectives as well as interim milestones in increments of five years, to achieve the sustainability goal in the basin within 20 years of the implementation of the plan

(b)(2) A description of how the plan helps meet each objective and how each objective is intended to achieve the sustainability goal for the basin for long-term beneficial uses of groundwater

The existing GMP will need to be modified to articulate, set measurable objectives and five-year increments to achieve the sustainability goal for, and how the plan helps meet objective for:

- 1) groundwater levels (address areas of groundwater level decline)*
- 2) groundwater quality (maintain and/or improve salinity intrusion)*
- 3) inelastic land surface subsidence (maintain - needs monitoring)*
- 4) changes in surface flow and surface water quality that directly affect groundwater levels or quality or are caused by groundwater extraction in the basin (maintain and monitor)*

(b)(4) Make decisions regarding whether or not to include setting objectives for addressing undesirable results that occurred before January 1, 2015.

The GSP should address whether addressing undesirable results that occurred before January 1, 2015 will be incorporated or considered at a later date.

(c) A planning and implementation horizon (of 50 years)

A 50-year planning horizon is required for the plan, with sustainability achieved within 20 years.

(d) Components relating to the following, as applicable to the basin:

(3) Mitigation of overdraft

(needs direct mention of addressing overdraft)

(5) A description of water supply used or available for use for groundwater recharge or in-lieu use

(needs mention – from GW banking FS and stormwater capture scoping study?)

(f) Monitoring protocols that are designed to detect changes in groundwater levels, groundwater quality, inelastic surface subsidence for basins for which subsidence has been identified as a potential problem, and flow and quality of surface water that directly affect groundwater levels or quality or are caused by groundwater extraction in the basin. The monitoring protocols shall be designed to generate information that promotes efficient and effective groundwater management.

Missing land surface subsidence monitoring protocol – need to finalize subsidence monitoring plan and implement.

(g) A description of the consideration given to the applicable county and city general plans and a description of the various adopted water resources-related plans and programs within the basin and an assessment of how the groundwater sustainability plan may affect those plans.

This (g) is all new – need to add description of various adopted water resources related plans and how city and county general plans are considered and applicable.

10727.4 Additional Plan Elements

In addition to the requirements of Section 10727.2, a groundwater sustainability plan shall include, where appropriate and in collaboration with the appropriate local agencies, all of the following:

The GSP should consider addressing all of the below as appropriate, using existing information as available, and identifying areas to improve based on advisory input from the BAP and TAC and final decision by the SGA.

- (a) Control of saline water intrusion.
(requires additional study)
- (b) Wellhead protection areas and recharge areas.
(inventory of existing wellhead protection areas)
- (c) Migration of contaminated groundwater.
(inventory of existing documented contamination)
- (d) A well abandonment and well destruction program.
(reference to County program with any basin specific advisory input)
- (e) Replenishment of groundwater extractions.
(none – in future)
- (f) Activities implementing, opportunities for, and removing impediments to, conjunctive use or underground storage.
(inventory/summary of related studies and field investigations)
- (g) Well construction policies.
(reference to County program with any basin specific advisory input)
- (h) Measures addressing groundwater contamination cleanup, recharge, diversions to storage, conservation, water recycling, conveyance, and extraction projects.
(exists in GMP in part)
- (i) Efficient water management practices, as defined in Section 10902, for the delivery of water and water conservation methods to improve the efficiency of water use.
(exists)
- (j) Efforts to develop relationships with state and federal regulatory agencies.
(exists)
- (k) Processes to review land use plans and efforts to coordinate with land use planning agencies to assess activities that potentially create risks to groundwater quality or quantity.
(needs to be completed)
- (l) Impacts on groundwater dependent ecosystems.
(needs to be considered and addressed)

10727.8. Public Notification and Participation; Advisory Committee

- (a) Develop written statement and make available to the Department, public, and legislative bodies of cities and county describing how interested parties may participate in the development and implementation of the groundwater sustainability plan, and encourage the active involvement of diverse social,

cultural and economic elements of population within the groundwater basins during development and implementation of the GSP.

10723.2 Consideration of All Interests of All Beneficial Uses and Users of Groundwater

The GSA shall consider the interests of all beneficial uses and users of groundwater including but not limited:

- (a) Holders of overlying groundwater rights, including:
 - (1) Agricultural users.
 - (2) Domestic well owners.
- (b) Municipal well operators.
- (c) Public water systems.
- (d) Local land use planning agencies.
- (e) Environmental users of groundwater.
- (f) Surface water users, if there is a hydrologic connection between surface and groundwater bodies.
- (g) The federal government, including, but not limited to, the military and managers of federal lands.
- (h) California Native American tribes.
- (i) Disadvantaged communities, including, but not limited to, those served by private domestic wells or small community water systems.
- (j) Entities listed in Section 10927 that are monitoring and reporting groundwater elevations in all or a part of a groundwater basin managed by the groundwater sustainability agency.

Requires development, publishing and distribution of the written statement for public involvement, and development and implementation of a Community Outreach Plan with specific interest group targets as listed above.

10728. Annual Reporting by Groundwater Sustainability Agency to Department
On April 1 following the adoption of a GAS and annually thereafter, the GSA shall submit a report to the Department containing the following data:

- (a) Groundwater elevation data.
- (b) Annual aggregated data identifying groundwater extraction for the preceding water year.
- (c) Surface water supply used for or available for use for groundwater recharge or in-lieu use.
- (d) Total water use.
- (e) Change in groundwater storage.

This will require the following consideration and decision-making:

- 1) *Annual groundwater extraction data – the large amount of pumping that is not measured represents a high uncertainty in the model and will require consideration by the GSA how best to manage the uncertainty and with what means of measurement and reporting for non de minimis extractors in the SVGMP*

- 2) *What method to use to determine on an annual basis the change of groundwater storage in the basin, i.e., model or other means, and what data to include and process workflow to use on an annual basis to establish as baseline and maintain for comparison.*

10728.2. Periodic Review and Assessment

A groundwater sustainability agency shall periodically evaluate its groundwater sustainability plan, assess changing conditions in the basin that may warrant modification of the plan or management objectives, and may adjust components in the plan. An evaluation of the plan shall focus on determining whether the actions under the plan are meeting the plan's management objectives and whether those objectives are meeting the sustainability goal in the basin.

The existing GMP does this – will need to be reworded to meeting the sustainability goal in the basin.

10728.4. Adoption or Amendment of Plan Following Public Hearing

A groundwater sustainability agency may adopt or amend a groundwater sustainability plan after a public hearing, held at least 90 days after providing notice to a city or county within the area of the proposed plan or amendment. The groundwater sustainability agency shall review and consider comments from any city or county that receives notice pursuant to this section and shall consult with a city or county that requests consultation within 30 days of receipt of the notice. Nothing in this section is intended to preclude an agency and a city or county from otherwise consulting or commenting regarding the adoption or amendment of a plan.

Requires noticing of city and county agencies 90 days prior to holding a hearing to adopt a plan.

10728.6. CEQA Not Applicable to Plan Preparation And Adoption

Division 13 (commencing with Section 21000) of the Public Resources Code does not apply to the preparation and adoption of plans pursuant to this chapter. Nothing in this part shall be interpreted as exempting from Division 13 (commencing with Section 21000) of the Public Resources Code a project that would implement actions taken pursuant to a plan adopted pursuant to this chapter.

Add a statement to GSP that 10728.6 exempts the Plan but not future projects in the plan from CEQA.

DEFINITIONS

(a) "Adjudication action" means an action filed in the superior or federal district court to determine the rights to extract groundwater from a basin or store water within a basin, including, but not limited to, actions to quiet title respecting rights to extract or store groundwater or an action brought to impose a physical solution on a basin.

(b) "Basin" means a groundwater basin or subbasin identified and defined in Bulletin 118 or as modified pursuant to Chapter 3 (commencing with Section 10722).

(c) "Bulletin 118" means the department's report entitled "California's Groundwater: Bulletin 118" updated in 2003, as it may be subsequently updated or revised in accordance with Section 12924.

(d) "Coordination agreement" means a legal agreement adopted between two or more groundwater sustainability agencies that provides the basis for coordinating multiple agencies or groundwater sustainability plans within a basin pursuant to this part.

(e) "De minimis extractor" means a person who extracts, for domestic purposes, two acre-feet or less per year.

(f) "Governing body" means the legislative body of a groundwater sustainability agency.

(g) "Groundwater" means water beneath the surface of the earth within the zone below the water table in which the soil is completely saturated with water, but does not include water that flows in known and definite channels.

(h) "Groundwater extraction facility" means a device or method for extracting groundwater from within a basin.

(i) "Groundwater recharge" means the augmentation of groundwater, by natural or artificial means.

(j) "Groundwater sustainability agency" means one or more local agencies that implement the provisions of this part. For purposes of imposing fees pursuant to Chapter 8 (commencing with Section 10730) or taking action to enforce a groundwater sustainability plan, "groundwater sustainability agency" also means each local agency comprising the groundwater sustainability agency if the plan authorizes separate agency action.

(k) "Groundwater sustainability plan" or "plan" means a plan of a groundwater sustainability agency proposed or adopted pursuant to this part.

(l) "Groundwater sustainability program" means a coordinated and ongoing activity undertaken to benefit a basin, pursuant to a groundwater sustainability plan.

(m) "Local agency" means a local public agency that has water supply, water management, or land use responsibilities within a groundwater basin.

(n) “Operator” means a person operating a groundwater extraction facility. The owner of a groundwater extraction facility shall be conclusively presumed to be the operator unless a satisfactory showing is made to the governing body of the groundwater sustainability agency that the groundwater extraction facility actually is operated by some other person.

(o) “Owner” means a person owning a groundwater extraction facility or an interest in a groundwater extraction facility other than a lien to secure the payment of a debt or other obligation.

(p) “Personal information” has the same meaning as defined in Section 1798.3 of the Civil Code.

(q) “Planning and implementation horizon” means a 50-year time period over which a groundwater sustainability agency determines that plans and measures will be implemented in a basin to ensure that the basin is operated within its sustainable yield.

(r) “Public water system” has the same meaning as defined in Section 116275 of the Health and Safety Code.

(s) “Recharge area” means the area that supplies water to an aquifer in a groundwater basin.

(t) “Sustainability goal” means the existence and implementation of one or more groundwater sustainability plans that achieve sustainable groundwater management by identifying and causing the implementation of measures targeted to ensure that the applicable basin is operated within its sustainable yield.

(u) “Sustainable groundwater management” means the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results.

(v) “Sustainable yield” means the maximum quantity of water, calculated over a base period representative of long-term conditions in the basin and including any temporary surplus, that can be withdrawn annually from a groundwater supply without causing an undesirable result.

(w) “Undesirable result” means one or more of the following effects caused by groundwater conditions occurring throughout the basin:

- (1) Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply if continued over the planning and implementation horizon. Overdraft during a period of drought is not sufficient to establish a chronic lowering of groundwater levels if extractions and recharge are managed as necessary to ensure that reductions in groundwater levels or storage during a period of drought are offset by

- increases in groundwater levels or storage during other periods.
- (2) Significant and unreasonable reduction of groundwater storage.
 - (3) Significant and unreasonable seawater intrusion.
 - (4) Significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies.
 - (5) Significant and unreasonable land subsidence that substantially interferes with surface land uses.
 - (6) Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.

(x) "Water budget" means an accounting of the total groundwater and surface water entering and leaving a basin including the changes in the amount of water stored.

(y) "Watermaster" means a watermaster appointed by a court or pursuant to other law.

(z) "Water year" means the period from October 1 through the following September 30, inclusive.

(aa) "Wellhead protection area" means the surface and subsurface area surrounding a water well or well field that supplies a public water system through which contaminants are reasonably likely to migrate toward the water well or well field.

New Requirements for a Groundwater Sustainability Plan	SVGMP
(a) A description of the physical setting and characteristics of the aquifer system underlying the basin that includes the following: (1) Historical data, to the extent available.	Y
(2) Groundwater levels, groundwater quality, subsidence, and groundwater-surface water interaction.	Y
(3) A general discussion of historical and projected water demands and supplies.	Y
(4) A map that details the area of the basin and the boundaries of the groundwater sustainability agencies that overlie the basin that have or are developing groundwater sustainability plans.	Y
(5) A map identifying existing and potential recharge areas for the basin. The map or maps shall identify the existing recharge areas that substantially contribute to the replenishment of the groundwater basin. The map or maps shall be provided to the appropriate local planning agencies after adoption of the groundwater sustainability plan.	Y
(b) (1) Measurable objectives, as well as interim milestones in increments of five years, to achieve the sustainability goal in the basin within 20 years of the implementation of the plan.	N
(2) A description of how the plan helps meet each objective and how each objective is intended to achieve the sustainability goal for the basin for long-term beneficial uses of groundwater.	N
(4) The plan may, but is not required to, address undesirable results that occurred before, and have not been corrected by, January 1, 2015. Notwithstanding paragraphs (1) to (3), inclusive, a groundwater sustainability agency has discretion as to whether to set measurable objectives and the timeframes for achieving any objectives for undesirable results that occurred before, and have not been corrected by, January 1, 2015.	N
(c) A planning and implementation horizon. (50 years)	N
(d) Components relating to the following, as applicable to the basin: (1) The monitoring and management of groundwater levels within the basin.	Y
(2) The monitoring and management of groundwater quality, groundwater quality degradation, inelastic land surface subsidence, and changes in surface flow and surface water quality that directly affect groundwater levels or quality or are caused by groundwater extraction in the basin.	Y
(3) Mitigation of overdraft.	N
(4) How recharge areas identified in the plan substantially contribute to the replenishment of the basin.	Y
(5) A description of surface water supply used or available for use for groundwater recharge or in-lieu use.	N
(e) A summary of the type of monitoring sites, type of measurements, and the frequency of monitoring for each location monitoring groundwater levels, groundwater quality, subsidence, streamflow, precipitation, evaporation, and tidal influence. The plan shall include a summary of monitoring information such as well depth, screened intervals, and aquifer zones monitored, and a summary of the type of well relied on for the information, including public, irrigation, domestic, industrial, and monitoring wells.	Y
(f) Monitoring protocols that are designed to detect changes in groundwater levels, groundwater quality, inelastic surface subsidence for basins for which	Y – but missing

subsidence has been identified as a potential problem, and flow and quality of surface water that directly affect groundwater levels or quality or are caused by groundwater extraction in the basin. The monitoring protocols shall be designed to generate information that promotes efficient and effective groundwater management.	subsidence
(g) A description of the consideration given to the applicable county and city general plans and a description of the various adopted water resources-related plans and programs within the basin and an assessment of how the groundwater sustainability plan may affect those plans.	N
10727.4. In addition to the requirements of Section 10727.2, a groundwater sustainability plan shall include, where appropriate and in collaboration with the appropriate local agencies, all of the following: (a) Control of saline water intrusion.	N
(b) Wellhead protection areas and recharge areas.	N
(c) Migration of contaminated groundwater.	N
(d) A well abandonment and well destruction program.	N
(e) Replenishment of groundwater extractions.	N
(f) Activities implementing, opportunities for, and removing impediments to, conjunctive use or underground storage.	N
(g) Well construction policies.	N
(h) Measures addressing groundwater contamination cleanup, recharge, diversions to storage, conservation, water recycling, conveyance, and extraction projects.	Y – in part
(i) Efficient water management practices, as defined in Section 10902, for the delivery of water and water conservation methods to improve the efficiency of water use.	Y
(j) Efforts to develop relationships with state and federal regulatory agencies.	Y
(k) Processes to review land use plans and efforts to coordinate with land use planning agencies to assess activities that potentially create risks to groundwater quality or quantity.	N
(l) Impacts on groundwater dependent ecosystems.	N

Y – Yes, it is included in the current SVGMP

N – Not. it is not included in the current SVGMP

NA – Not applicable

? – Not certain if it needs to be included in a new Groundwater Sustainability Plan

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Possible Technical Alternatives to Address Groundwater Depletion

Possible Technical Approaches	
Stormwater Capture & Recharge	Assess how much stormwater is potentially available and could be captured and recharged, optimal recharge locations, and facilities needed. Include flood management, habitat enhancement, and recreation elements.
<i>Option 1</i> Assumptions	<p><i>Medium to large scale project(s) 100 to 200 acres total, 50-100 acres each?</i></p> <p>Possible location(s)</p> <p>Capture volume 250 – 1,000 AF/yr?</p> <p>Cost range \$</p> <p>Land purchase/easement \$</p> <p>Planning/Design \$</p> <p>Construction \$</p> <p>Schedule</p> <p>Cost/AF</p> <p>Facilities description:</p>
<i>Option 2</i> Assumptions	<p><i>Agricultural distributed stormwater capture and recharge - ¼ to ½ acre each?</i></p> <p>Distributed across alluvial basin 20 locations?</p> <p>Capture volume 1-2 AF each, times 20 = 20-40 AF?</p> <p>Recharge volume 100-200 AFY?</p> <p>Recharge efficiency:</p> <p>Cost range \$</p> <p>Design/Construct \$</p> <p>Timing</p> <p>Cost/AF</p> <p>Facilities description:</p>
<i>Option 3</i> Assumptions	<p><i>Domestic distributed stormwater capture and recharge (LID approach)</i></p> <p>Techniques include elements such as rain gardens and bioretention; vegetated swales, buffers, and strips; rain barrels and cisterns; permeable pavers; impervious surface</p>

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	reduction and disconnection (WaterSmart Manual) distributed across alluvial basin. Capture volume 10 AF = 325 gallons per household? Cost range \$ \$ per household Timing Cost/AF Facilities description: 45,000 / 4 = 11,000 residences?
Groundwater Banking	Bank imported Russian River in Sonoma Valley aquifers using wells. Evaluate how much Russian River water could potentially be banked, optimal banking locations, and the facilities needed.
<i>Option 1 Assumptions</i>	Water Contractor facilities One to two wells each for City of Sonoma and Valley for the Moon Water District Distributed in areas of City and Valley of the Moon jurisdictional areas Recharge volume – 500-1,000 acre-feet per year? Recovery efficiency: Cost range Capital cost - \$ O&M - \$/year including cost of the water to bank Schedule – Commence in 2020, assume 20 year period for estimating Cost/AF - \$ Facilities description:
<i>Option 2 Assumptions</i>	Deliveries outside Water Contractor areas One to two wells each for both of the depleted areas Distributed in the two groundwater depletion areas jurisdictional areas Recharge volume – 500-1,000 acre-feet per year Recovery efficiency: Cost range Capital cost - \$ O&M - \$/year including cost of the water to bank

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	Schedule – Commence in 2020, assume 20 year period for estimating Cost/AF - \$ Facilities description:
Increase Recycled Water	Increase the use of recycled for agricultural and landscape irrigation. Evaluate recycled water availability with Sonoma County Sanitation District build out as in lieu substitution to reduce groundwater demand, and optimal locations for application.
<i>Option 1 Assumptions</i>	Agricultural (grape growing) irrigation and commercial landscape irrigation Build-out of Sonoma Valley Sanitation District plant recycled water piping Distributed in rural areas in southern Sonoma Valley Groundwater replacement volume 2,400 AF/yr Cost range \$ Timing - build out by 2035 Cost/AF \$ Facilities description:
Increase Conservation	Increase rural area domestic and agricultural conservation. Assess potential for rural domestic conservation by reducing groundwater demand using tools and incentives available for urban area BMPs. Develop assumptions and evaluate potential additional viticulture and non-viticulture additional conservation amounts.
<i>Option 1 Assumptions</i>	Rural domestic conservation Number of domestic residences and approximate savings per residence Distributed in rural areas in southern Sonoma Valley Groundwater replacement volume AF/yr Cost range Timing Cost/AF Description: Provide incentives for and funding for increasing conservation with water efficient appliances and fixtures, and improved water efficiency in landscape irrigation and landscaping with native and drought tolerant plans and cash for grass.
<i>Option 2 Assumptions</i>	Rural agricultural conservation Number of acres and approximate savings per acre

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	Distributed in rural areas in southern Sonoma Valley Groundwater replacement volume AF/yr Cost range Timing Cost/AF Description:
In Lieu Surface Water Substitution for Groundwater	Assess potential for expanding deliveries of surface water for in lieu substitution to meet groundwater demands, focused in areas of groundwater declines, considering conveyance and connection costs.
<i>Option 1 Assumptions</i>	Rural agricultural and domestic wells replacement with imported surface water Number of wells to replace, cost of conveyance piping and connection Requires additional institution or institution expansion Distributed in rural areas in southern Sonoma Valley Groundwater replacement volume Cost range Timing Cost/AF Facilities description: Requires Storage
Pumping Redistribution	Assess potential for pumping redistribution to reduce demand in areas of groundwater level decline.
<i>Option 1 Assumptions</i>	Rural agricultural and domestic pumpage redistributed from groundwater depletion areas Number of wells to replace, cost of conveyance piping and connection May require additional institution or institution expansion Distributed in rural areas in southern Sonoma Valley Groundwater replacement volume Cost range Timing Cost/AF Facilities description: Requires Conveyance and may require New Wells
Surface Water Storage	Assess the potential for small and large surface water storage ponds as temporary storage

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	to offset a portion of agricultural groundwater demands.
<i>Option 1 Assumptions</i>	<p>Small surface storage ponds (No. acre/storage volume) - $\frac{1}{4}$ to $\frac{1}{2}$ acre each?</p> <p>Number of acres of storage ponds 20-40?</p> <p>Distributed in rural areas in southern Sonoma Valley</p> <p>Groundwater replacement volume 20 – 100 AF/yr ?</p> <p>1-5 AF each</p> <p>Cost range \$</p> <p>Design/Construct \$</p> <p>Timing</p> <p>Cost/AF</p> <p>Facilities description:</p>
<i>Option 2 Assumptions</i>	<p>Large surface storage ponds (No. acre/storage volume)</p> <p>Number of acres of storage ponds</p> <p>Distributed in rural areas in southern Sonoma Valley</p> <p>Groundwater replacement volume</p> <p>Cost range</p> <p>Timing</p> <p>Cost/AF</p> <p>Facilities description:</p>
Salinity Intrusion Mitigation	Consider different options and preliminary cost estimates for salinity intrusion mitigation.
<i>Option 1 Assumptions</i>	<p>Recharge wells along southern valley – recycled water and/or imported water</p> <p>Number of wells: 10 – 20 ?</p> <p>Distributed along southern Sonoma Valley, based on additional studies to locate wells</p> <p>Groundwater replacement volume 500-1,000AF</p> <p>Cost range Capitol</p> <p>Capitol cost per well \$ /well</p> <p>Conveyance</p> <p>Water use per well 50-100 AF/yr ?</p> <p>Water cost per year per well - \$?/well/yr</p> <p>O&M cost per well - \$?/well/yr</p>

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	Timing Cost/AF Facilities description:
Desalination	Consider different options and preliminary cost estimates for seawater desalination.
<i>Assumptions</i>	Desalination plant with intake at San Pablo Bay Groundwater replacement volume Cost range – \$0.5-1.0B capital cost Cost/AF - \$+1,000 per AF
Baseline	
No Action Alternative	Considers the costs and consequences of not taking action – no changes to current practices.

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Possible Institutional-Regulatory Alternatives to Address Groundwater Depletion

Baseline	
No Action Alternative	Considers the costs and consequences of not taking action – no changes to current practices.
Build on Adopted County General Plan Policies	
Groundwater Availability Map	Originally based on CA Geologic Survey Special Report 120, Geology for Planning in Sonoma County 1980. Work with PRMD to update the Groundwater Availability Map with more recent data published by USGS and SVGMP for use in land use planning decisions.
Policy WR-1t	Where area studies or monitoring find that saltwater intrusion has occurred, support analysis of how the intrusion is related to groundwater extraction and support development of a groundwater management plan or other appropriate measures to avoid further intrusion and, where practicable, reverse past intrusion.
Policy WR-1u	“In the marshlands and agricultural areas south of Sonoma and Petaluma require all environmental assessment and discretionary approvals to analyze and, where practicable, avoid any increase in saltwater intrusion into groundwater.” Possible action:
Goal WR-2	“Manage groundwater as a valuable and limited resource. “
Policy WR-2c	“Work with well drillers and other parties familiar with groundwater conditions in Sonoma County to develop well permit standards...” <i>Possible action:</i> Work with PRMD and provide input on Draft Ordinance for well permits and procedures.
Policy WR-2d	“Continue the existing program to require groundwater monitoring for new or expanded discretionary commercial and industrial uses using wells. Where justified by the monitoring program, establish additional monitoring requirements for other new wells. Possible action: Work with PRMD to specify areas where additional discretionary monitoring might be considered for new wells in depletion zones.
Policy WR-2i	As part of the first annual report, consider the recommendations of the recently completed

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	groundwater studies in the Joy Road, Mark West Springs, and Bennett Valley areas, as well as the Sonoma Valley Groundwater Management Plan.
Policy WR-2j	Cooperate with the incorporated Cities, SCWA, DWR, US Geological Survey, well drillers, and all water users and purveyors in the development of a comprehensive groundwater assessment for each major groundwater basin in the county and the priorities, sequence and timing for such studies. Prepare such assessments to meet the applicable requirements of the California Water Code for a “groundwater management plan” etc. If a basin assessment indicates that future groundwater availability, water quality and surface water flows may be threatened and there may be a need for additional management actions to address groundwater problems, prepare a plan for managing groundwater supplies which may require limitations on water extraction and use and other special standards for allowed development, wells, extraction or use, etc.
Policy WR-2e	<p>“Requirements for proof of groundwater and test wells in Groundwater Availability Map Class 3 & 4 areas” including hydrogeologic report that establish groundwater quality and quantity.”</p> <p>Possible action: Assess expansion of areas where “proof of available groundwater” is required, and may be linked to the update of the Groundwater Availability Map.</p>
Possible Institutional Approaches	
Benefit Assessment District	An involuntary charge that property owners pay for a public improvement or service that provides a special benefit to their property. The amount of the assessment is directly related to the amount of the benefit their property receives.
Irrigation District	May control, distribute, store, spread, sink, treat, purify, recapture and salvage any water including but not limited to sewage waters for the beneficial use or uses of the district or its inhabitants or the owners of rights to waters therein.
Water Conservation District	May conserve, store, spread, and sink water and for such purposes may acquire or construct dams, damsites, reservoirs and reservoir sites, canals, ditches and conduits, spreading basins, sinking wells, and sinking basins, and may sell, deliver, distribute, or otherwise dispose of any water that may be stored or appropriated, owned, or controlled by the district.
Water Replenishment District	Within or outside of the district to construct, purchase, lease, or otherwise acquire, and to operate and maintain necessary waterworks and other works, machinery and facilities,

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	canals, conduits, waters, water rights, spreading grounds, lands, rights and privileges useful or necessary to replenish the underground water basin within the district, or to augment the common water supplies of the district.
Expand Existing Institutions	Geographic jurisdictional expansion of existing institutions.
Hybrid	Combination of some of the above.
Other	Include other options if available.
Possible Legislative Amendments to AB3030	Current discussions by the Governor's Administration, the State Legislature and groundwater industry leadership indicate the need for and general agreement that groundwater management needs improvement statewide. Legislation may include additional requirements and authorities for Groundwater Management Plans.